• **Auxiliary limit switches:** Auxiliary (additional) limit switches are typically used as valve position confirmation (end of travel) with a PLC, DCS, etc. Other applications are for interlocking with other equipment or valves. These switches are SPDT with a 15 amp rating, and dry contact.

• **Heater and thermostat:** A pre-wired heater and thermostat is available for maintaining a constant temperature inside of the actuator housing, eliminating condensation that can form when the temperature fluctuates. It is imperative when the actuator is used in lower operating temperatures. The heater and thermostat is effective to –40 degrees F.

• **RHM Module:** The RHM Module is a combination of a 15Watt heater and thermostat arrangement along with 2-SPDT dry contact 8Amp relays that act as auxiliary limit switches. This module operates via standard control wiring, and is a cost effective solution to separate installs of the heater and thermostat option and the auxiliary limit switch option.

• **Feedback potentiometer:** A 1000-ohm, 1 watt feedback potentiometer with 5% linearity can be installed for position feedback. This varies from the auxiliary limit switches, as the feedback potentiometer provides a varying degree of opening percentage from 0-1000 ohms

• **Modulation/Postitioner:** A digital positioner can be installed inside of the actuator for precise modulating control. The positioner accepts a variety of supply voltages and can be calibrated for various control signals (4-20mA, 0-10vdc, 0-5vdc, 1-5vdc, etc.).

• **Transmitter:** A transmitter can be installed in the unit to provide precise valve position (position feedback) to a PLC, DCS, etc. via current or voltage. This feedback is output from the actuator NOT a control signal to the actuator. Certain transmitter models are also equipped with 3-SPST dry relay contacts.

• **Mechanical brake:** This prevents oscillation typically found with rubber seated Butterfly Valves. The brake is installed on top of the motor armature and is electro-mechanical. When power is applied to the actuator, it is also applied to the brake, which releases the armature and allows the unit to cycle. When the power is lost the springs within the brake lock the armature so that it can no longer rotate, thus eliminating oscillation

• **Cycle length control (CLC):** This option allows the field adjustment of the cycle time up to 10 minutes. The CLC can be configured at the factory for the open cycle only, for the close cycle only, or for the combination of open and close cycles.

• **Two-wire control:** The two-wire control option is a relay installed inside of the actuator for direct wiring to timers, level switches (SPST), etc. A constant power supply and a SPST switch of some sort are required for cycling of the actuator. When the SPDT switch is closed, the valve opens, and vice versa

• **Center off:** This option is used when a 90-degree "off" position is required while using a three-way ball valve. Two limit switches and two cams are installed in the unit (not to be confused with auxiliary limit switches) and allow three positions for a three way valve; 0 degrees or left port open, 180 degrees or right port open, and 90 degrees or both ports closed

• **Failsafe battery back up:** A solid state PCB along with a rechargeable battery pack is installed inside of the actuator. When supply power is lost, the unit will then travel to a pre-determined "fail position". It is imperative that there be constant supply power to the unit to ensure that the battery pack maintain a full charge.

• **Multiturn:** This option allows the actuator to make multiple revolutions that are needed when automating valves such as diaphragm, gate, needle, etc. This option is only available with the Series 92 Electric Actuator.

• **Voltages:** There are five voltage options available to meet a variety of customer needs: 230 VAC, 12 VDC, 24 VDC, 12VAC, 24 VAC